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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,196	02/22/2005	Yasuhiro Tomita	046124-5358	3702
9629	7590	03/13/2006	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			GAWORECKI, MARK R	
			ART UNIT	PAPER NUMBER
			2884	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/525,196

Applicant(s)

TOMITA ET AL.

Examiner

Mark R. Gaworecki

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11 and 15 is/are rejected.
- 7) ☒ Claim(s) 4-10, 12-14 and 16-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>22 February 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Yarnall (US 2002/0063204).

With respect to claim 1, Yarnall teaches the use of a radiation detector comprising a radiation probe (20) detachably attached to a main body (control unit, 15), wherein the probe has a detection unit (detector, 33) and an electrical connection (24) between the a terminal on detection unit (preamplifier/switch assembly, 34) and a terminal on a connector to the main body (cable input, 11). Yarnall further teaches the use of a collimator (columnator, 39).

With respect to claim 2, Yarnall teaches the use of a radiation detector wherein the detection unit (detector, 33) has an input face (receiving end, 38), which transmits radiation. Yarnall further teaches arranging the detection element so as to receive the radiation passing through the input face (38), as well as a collimator (collumnator, 39) being an opening which faces the input face (Fig. 2).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yarnall (US 2002/0063204) in view of Carroll (5,036,201).

With respect to claim 3, Yarnall teaches a radiation detection probe with a detection element (detector, 33) and a collimator (collumnator, 39), but fails to teach a cap-shaped shield member mounted on the detection unit as to cover the radiation detection element, wherein the shield member is made of a radiation-blocking material, has a front wall facing the radiation detection element and a cylindrical side wall which extends from the edge of the front wall. Carroll teaches the use of a cap-shaped shield member (probe tip with window, 24B, 30) mounted on the detection unit to cover the radiation element, made of a radiation-blocking material (Column 5, lines 23-27), having a front wall (window, 30) facing the radiation detection element (36), a cylindrical side wall (bore hole, 26B), and a through-hole in the front wall serving as a collimator (when no collimator is attached, window, 30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such a cap-shaped shield member in order to protect an enclosed radiation element and provide more accurate results, without interference through the side walls.

With respect to claim 11, Yarnall teaches a radiation detector (20) with a collimator (collumnator, 39), but fails to teach the use of a detachable cap-shaped probe cover made of radiation-blocking material, which covers the

detection unit and a seal ring for connecting said cover. Carroll teaches a detachable cap-shaped probe cover (collimator, 100) which fits over the detection unit (detecting means, 28), made of radiation blocking material (Column 5, lines 23-27), and a seal ring (resilient member, 114) for connecting said cover to the radiation detector. It would have been obvious to one ordinary skill in the art at the time the invention was made to include a detachable probe cover in order to further protect the probe and prevent contamination from outside sources.

5. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yarnall (US 2002/0063204) in view of Aslan (3,789,299).

With respect to claim 15, Yarnall teaches the use of a radiation detector with an electrical connection between the probe (20) and the main body (control unit, 15), but fails to teach the use of a pin and socket connection. Aslan teaches the use of a radiation detector wherein the probe head (13) is connected to the main body of the probe (10) via pin-type connectors (Column 4, lines 15-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pin-type connectors as an electrical connection in order to provide a solid, electrical connection between the probe and the main body.

Allowable Subject Matter

6. Claims 4-10, 12-14, 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, Carroll (5,036,201) teaches a cap-shaped collimator adapted for use as a probe cover (100) with a seal ring (114) between this cover and the probe body, but fails to teach a cover which seals the entire main body when the cover is mounted. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claims 5-7, Carroll (5,036,201) teaches a probe tip (24B) surrounding the detection element (28), housed within a hollow portion of a collimator (100), but fails to teach a removable shield element that is either fixed or detachable from the probe cover. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claim 8, Carroll (5,036,201) teaches a probe cover (collimator, 100) for a radiation detection probe, which is cap-shaped and detachable from the probe (Fig. 1), with a seal ring and attachable and variable positions along the probe (Fig. 4), but fails to show a shield component attached to the inside of this cover, nor a means for attaching the probe cover directly to a main body connector. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claims 9, 12, and 20, Carroll (5,036,201) teaches a window (110) in the cap-shaped probe cover (100), which blocks particular light wavelengths, but fails to specifically include a plate which blocks electromagnetic waves having an energy of 1 keV or less. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claims 13, 14, and 16, Yarnell (US 2002/0063204) teaches a connector (24) between the probe (10) and the main body (15), but does not teach any kind of support bar and slide member as a connector. Further, Aslan (3,789,299) teaches a pin and socket connection for connecting a probe to a probe body, but fails to show the pins having different lengths and polarities, for use with corresponding sockets. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claims 10, and 17-19, Yarnall (US 2002/0063204) teaches a radiation detector with a probe (10) detachably connected to a main body (15), wherein the probe has a detection element (33), a radiation-blocking cylindrical casing for housing the element (22), and a connector (24) between the probe and the main body. Yarnall fails to teach a cylindrical element cover surrounding the detection element, and a fastener for attaching the main body to the probe. This particular combination is thus not disclosed, suggested, or rendered obvious by the prior art of record.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to hand-held radiation detectors and probes:

U.S. Pat. No. 6,218,669 to Call

U.S. Pat. No. 6,048,093 to Pompei

U.S. Pat. No. 5,170,055 to Carroll et al.

U.S. Pat. No. 6,219,573 to Pompei

U.S. Pat. No. 4,893,013 to Denen

U.S. Pat. No. 5,635,710 to Reed et al.


U.S. Pat. Publication No. 2001/0013576 to Miller et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Gaworecki whose telephone number is (571) 272-8540. The examiner can normally be reached on Monday through Friday, 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MG
02/28/2006



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